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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,656	12/21/2001	Christopher P. Zura	23555-P011US	4464

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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT

PAPER NUMBER

3653

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/036,656	Applicant(s) ZURA ET AL.	
	Examiner Jeffrey A. Shapiro	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/19/04 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finley et al (US 6,442,448 B1) in view of Chandonnet (US 6,401,009 B1). Finley et al discloses the following.

As described in Claims 1 and 10;

- a. an intermediary module (630, 640 and 650) adapted to be coupled to a fuel dispenser,
- b. a dispenser controller (SM300), and
- c. a display and control module (SM300),

d. said intermediary module (630, 640 and 650) responsive to dispenser control signals transmitted from said dispenser controller (SM300) to process said control signals in accordance with programming provided by said display and control module and to transmit said processed control signals to said fuel dispenser;

Finley et al does not expressly disclose, but Chandonnet discloses the following.

As described in Claim 10;

u. a user interface (260), coupled to said display and control device, for allowing a user to specify that an additive is to be dispensed with fuel dispensed by said dispenser;

Finley et al and Chandonnet are analogous art as they concern vending items in a fuel dispensing environment.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have provided an interface on the fuel dispensers of Finley et al in order to allow a customer to choose an additive to be dispensed with the fuel to be dispensed by the dispenser.

The suggestion/motivation for including an additive interface would have been to provide items to a fuel customer at a fuel pump which are relevant to the fuel purchase. See col. 2, lines 32-51 of Chandonnet.

4. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christman et al (US 6,390,151 B1) in view of Chandonnet (US 6,401,009 B1), in view of Brown (US 5,771,278) and further in view of Kolls (US 6,643,623 B1) and still further in view of Finley. Christman et al discloses the following.

As described in Claims 1 and 10;

- a. a fuel dispenser (14 and 38) for pumping fuel in response to dispenser control signals applied thereto;
- b. a pump controller (20) for generating said dispenser control signals, said pump controller having a communications interface adapted to receive transaction signals from said fuel dispenser and to transmit said dispenser control signals from said pump controller to said dispenser (see col. 14, lines 45-67, noting that connection (48) has a two-way arrow indicating signals passing both ways between the fuel dispenser and the pump controller);
- c. an intermediary module coupled to said communications interface and to said dispenser, said intermediary module adapted to intercept said transaction signals and said dispenser control signals (note that col. 14, lines 58-63 indicate the existence of signal processing devices such as encoders/decoders, modems, and interface modules, which can be construed as "intermediary modules");
- d. a display and control module (30), coupled to said intermediary module; (Note that col. 14, lines 28-34 indicate that the device (30) can

be either mounted in a vehicle or mounted on the dispenser itself—at the very least, it would be obvious to one ordinarily skilled in the art to allow a communication device to be either mobile in the vehicle or affixed to the dispenser itself, or both, so as to increase the amount of sales by accommodating those who may not have a mobile device in their vehicle. Note also col. 20, lines 38-50, which indicates that a display device may be mounted directly onto the dispenser, noting that for a display to be mounted to the dispenser, it would be obvious to those ordinarily skilled in the art to also add the necessary display cards and controllers.)

e. a display, coupled to said display and control module, for displaying multimedia content (see col. 20, lines 1-30 and col. 18, lines 18-35, noting that video as well as voice and text are carried and displayed on the displays of Christman et al);

f. wherein said intermediary module transmits at least one transaction signal from said fuel dispenser to said communications interface and to said display and control module (see col. 7, lines 66 and 67 and col. 8, line 1) (see also col 7, lines 22-67 and col. 8, lines 1-16);

As described in Claims 2-4;

g. said intermediary module modifies at least one dispenser control signal received from said communications interface and transmits said modified dispenser control signal to said fuel dispenser;

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h. said intermediary module modifies at least one transaction signal from said fuel dispenser and transmits said modified transaction signal to said communications interface;

i. said display control module generates control signals to control said intermediary device to generate dispenser control signals and apply said dispenser control signals to said fuel dispenser;

(Note again, the modem, encoder, decoder, and other circuitry-cryptography electronics in figure 4a, which also might be used by those ordinarily skilled in the art to condition/modify the signals from the communications interface to the dispenser.)

As described in Claim 5;

j. a server (42), coupled to said display and control module by a communications link (40)—see also figure 2);

As described in Claim 6;

k. said communications link to the server is a wireless communications link (see col. 16, lines 8-12);

As described in Claim 7;

l. said server transmits multimedia content to said display and control module via said communications link (see previous discussions);

As described in Claim 8;

m. said multimedia content is displayed on said display (see previous discussions, also noting that, at the very least, it would have been obvious to display multimedia content on a display);

The following claims are rejected using Christman (note that both interpretations require the same teachings from both Chandonnet and Brown), with an alternative interpretation, whereby the “vehicle communications device” is the intermediary module.

As described in Claim 10;

n. an intermediary module (30 or 52) adapted to be coupled to a fuel dispenser,

o. a dispenser controller (20), and

p. a display and control module (see col. 20, lines 38-50),

q. said intermediary module (30) responsive to dispenser control signals transmitted from said dispenser controller (20) to process said control signals in accordance with programming provided by said display and control module and to transmit said processed control signals to said fuel dispenser (note, for example, that the dispenser controller sends control signals to and from the programmable dispensing valve display, but that the signals sent to and from the dispenser by the vehicle communications device affect the dispenser controller and its functions—note also that the intermediary module can also be construed to include

the controller (20), and that even the entire dispenser system may considered an intermediary module with respect to the server (42) and the other remote portions of the system);

As described in Claim 11;

r. said intermediary module is responsive to transaction signals transmitted from said fuel dispenser to process said transaction signals in accordance with programming provided by said display and control module and to transmit said processed control signals to said dispenser controller (see figure 3, noting that "refueling request info", "commercial transaction" and "operator communications" signals are sent to and from the RF transceiver (54) of the dispenser);

As described in Claim 12;

s. said intermediary module is responsive to control signals from said display and control module to generate dispenser control signals to be applied to said fuel dispenser (see figure 3);

As described in Claim 13;

t. said intermediary module is responsive to control signals from said display and control module to generate transaction signals to be transmitted to said dispenser controller (see figure 3);

Christman et al does not expressly disclose, but Chandonnet discloses the following.

As described in Claim 9;

- u. a user interface (260), coupled to said display and control device, for allowing a user to specify that an additive is to be dispensed with fuel dispensed by said dispenser;

Christman et al does not expressly disclose, but Brown discloses the following.

As described in Claims 1 and 10;

- v. *said intermediary module (210) having a data processing component (211) and a signal converting component (213);* (See Brown, col. 11, lines 15-26 and figure 4a. Note particularly, col. 11, lines 24-27, which indicate that both components (210) and (211) can be formed as a single circuit.)

Christman et al does not expressly disclose, but Kolls discloses the following.

As described in Claims 1 and 10;

- w. use of protocols in an information system used in a fuel pump point of sale system and for use in a fuel pump to communicate with the rest of the system.

Christman et al does not expressly disclose, but Finley discloses the following.

As described in Claims 1 and 10;

x. adapting fuel dispensing upgrade equipment for use with existing fuel dispensing equipment by including emulation circuitry and software for protocol translation of data signals. See Finley, col. 12, lines 35-col. 13, line 35.

Christman et al, Finely and Chandonnet are analogous art as they concern vending items in a fuel dispensing environment.

Christman et al and Brown are analogous art because Christman discloses use of a modulator/demodulator in controller (20) and Brown discloses details of such a device. See Christman, col. 14, lines 55-63. Brown discloses details of a modem, as is well-known in the art, which has a data processing and signal converting component. See previous citations.

Christman et al and Kolls are analogous art because they both concern electronic control and communication in a fuel pump environment.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have provided an interface on the fuel dispensers of Christman et al in order to allow a customer to choose an additive to be dispensed with the fuel to be dispensed by the dispenser.

The suggestion/motivation for including an additive interface would have been to provide items to a fuel customer at a fuel pump which are relevant to the fuel purchase. See col. 2, lines 32-51 of Chandonnet.

It would also have been obvious to provide Christman's system with a dedicated controller (20) which has a modem having both a data processing and signal converting components. See Brown col. 11, lines 15-27.

The suggestion/motivation would have been that modems, in order to work, require both a data processor and a signal converter, such as an analogue to digital converter.

It also would have been obvious to one of ordinary skill to use a protocol to effect communications between customers at a fuel pump and remote entities through an internet connection or to cause the fuel pump to communicate with other parts of the control system. See abstract of Kolls, which states that fuel pumps are connected to each other and points of sale by a network, and col. 25, lines 29-31, stating that "all data communications are in accordance with established network protocol programming." See also col. 18, lines 49-67 and col. 19, lines 1-14, stating TCP/IP protocol is used.

The suggestion/motivation for using a protocol would have been because one ordinarily skilled in the art would recognize that the control system of Christman, which includes "internet type communications networks", must be operated with a protocol to allow divergent parts of the system to communicate with each other. See Christman, col. 14, lines 5-67, particularly lines 55-63 and col. 15, lines 22-67, particularly lines 58-65.

Finally, it would also have been obvious to adapt Christman's system upgrade with a dedicated controller (20) able to handle data processing and signal

converting of data from various proprietary protocols to a data signal in a single protocol. See Finley, col. 12, lines 35-col. 13, line 35.

The suggestion/motivation would have been to adapt the upgrade equipment to handle any of the various proprietary dispenser equipment protocols used in the industry. See Finley, col. 12, lines 35-45.

Response to Arguments

5. Applicant's arguments filed 5/17/05 have been fully considered but they are not persuasive. The addition of the limitations "signal converting component" in place of "intermediary module", the addition of "the signal specification and communication protocol of the fuel dispenser" and "for converting to a form usable by said data processing equipment" to Independent Claim 1 is found in the cited reference Finley '448. This is also true regarding the newly added limitations to Independent Claim 10, as these limitations are considered to be broader than the additions to Independent Claim 1. Finley's system structure illustrated in figure 6 can be construed to read on the independent claims and the newly added limitations. Elements (630, 640 and 650) are emulation circuitry and hardware which allows converting data to and from proprietary and other protocols used by fuel dispenser equipment. See also Finley, col. 12 and 13, table 1, which lists various protocols. Col. 12, lines 35-40 mentions that fuel dispenser equipment manufacturers developed proprietary protocols to create barriers to entry into the market by competitors. However, this caused modernization and retrofit of upgrades to present equipment difficult as well, thus requiring that new designs of

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equipment intended as retrofits to older dispensers must be able to handle all possible protocols such a retrofit might encounter. Said structure illustrated in figure 6 converts signals fed from various dispensers and associated component modules. These signals are converted from the proprietary or other protocol to a protocol used by the controller (SM 300). The form of the signals is therefore converted to a form usable by said data processing component (SM 300).

As stated previously, use of a proprietary protocol in a fuel dispensing system would be considered obvious. See Finley et al (US 6,442,448 B1), col. 13, lines 10-34, which states that an "interface" for handling various proprietary protocols is used in the fuel dispensing control environment.

Additionally, it is unclear what a "personality module" and an "inceptor module" refers to. These terms are not included in the claims.

Chandonnet is used for the teaching of incorporating additive dispensing features to a fuel dispenser. Both Chandonnet and Finley are considered analogous art, both being from the fuel dispensing areas, Chandonnet providing motivation to combine because it mentions that customers would find it desirable to include such additives along with their gasoline purchase.

Christman discloses similar structure, as described above, which can be construed as an intermediary module. Kolls describes use of protocols throughout the system in various areas. Finley describes the use of proprietary protocols and design of emulation circuitry and software for use in retrofit equipment. Brown teaches the

combining of the data processing component and signal converting component into one single circuit or "intermediary module."

Conclusion

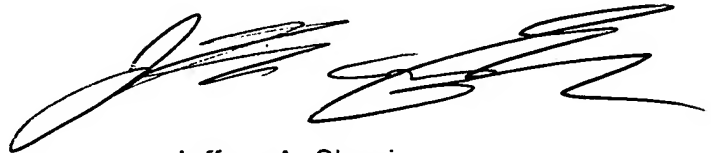
6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

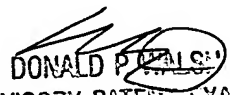
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald P. Walsh can be reached on (571)272-6944. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey A. Shapiro
Examiner
Art Unit 3653

August 20, 2005


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